

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

)	Docket No. 06-035-21
In the Matter of the Application)	
Of PacifiCorp for Approval of)	PRE-FILED SURREBUTTAL
Its Proposed Electric Service)	TESTIMONY OF
Schedules and Electric)	ANTHONY J. YANKEL
Service Regulations)	FOR THE COMMITTEE OF
)	CONSUMER SERVICES

October 23, 2006

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INTRODUCTION

1

2

3 **Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS**
4 **ADDRESS.**

5 A. I am Anthony J. Yankel. I am President of Yankel and Associates, Inc. My
6 address is 29814 Lake Road, Bay Village, Ohio, 44140.

7 **Q. ARE YOU THE SAME ANTHONY J. YANKEL THAT HAS PREVIOUSLY**
8 **TESTIFIED ON BEHALF OF THE COMMITTEE IN THIS CASE?**

9 A. Yes.

10 **Q. DO YOU HAVE A SUMMARY OF THE KEY ISSUES AND CONCERNS**
11 **ADDRESSED IN YOUR SURREBUTTAL TESTIMONY?**

12 A. Yes I do. There has been considerable testimony submitted in this case
13 regarding Residential rate design. Some of that testimony is in agreement
14 with the Committee's position and some is opposed. As previously
15 discussed in my Direct Testimony, rate design is more of an art than a
16 science. Consequently, one would expect a variety of opinions regarding
17 how Residential rates should be established. The testimony submitted
18 provides a wide array of perspectives.

19 The Commission should recognize that it is being asked to set policy
20 (art) and is not expected to develop a precise relationship of cost causation
21 for each of the approximately 656,000 Residential customers (science).
22 While rates should be designed such that there is a reasonable expectation
23 that the Company's revenue requirement will be met and should reflect

24 general cost causation principles, the Committee strongly urges the
25 Commission to carefully consider the specific circumstances in this case
26 and make its rate design decision accordingly.

27 All parties in this case generally agree that the growth in air-
28 conditioning load (residential as well as non-residential) is one of the key
29 drivers underlying the substantial increase in Utah's summer peak load.
30 This growth in peak load has required PacifiCorp (the Company) to invest in
31 new Generation, Transmission, and Distribution facilities which has resulted
32 in upward pressure on rates. It is in the rate design phase of this case
33 where the Commission can set clear policy/pricing signals as to how that
34 growth will be addressed at the Intra-class level. I do not advocate that
35 rates be developed that are punitive to air-conditioning customers, but I do
36 not believe that it is appropriate to place the bulk of a major rate increase
37 (10.31%) on the backs of the smallest use customers that are not using air-
38 conditioning.

39 **Q. WILL YOUR TESTIMONY ADDRESS ALL OF THE POINTS RAISED BY**
40 **OTHER WITNESSES WHO FILED REBUTTAL TESTIMONY?**

41 A. No. I will limit my responsive testimony to a few of the more important
42 areas where there is disagreement with the other parties or where
43 statements have been made that misinterpreted or mischaracterized my
44 Direct Testimony.

45

RESPONSE TO TESTIMONY OF MR. TAYLOR AND MR. ANDERSON

Q. COMPANY WITNESSES TAYLOR AND ANDERSON BOTH CONTEND THAT THE AVERAGE LOAD FACTORS YOU USED ON PAGES 4 AND 5 OF YOUR DIRECT TESTIMONY WERE DISTORTIONS OF ACTUAL CUSTOMER USAGE PATTERNS¹. IS THIS A FAIR REPRESENTATION OF YOUR TESTIMONY AND THE DATA PRESENTED?

A. No. My Direct Testimony clearly states that I averaged² the coincident load factor data of each of the approximate 150 Residential load research sample customers. Apparently, the Company would prefer that I calculate these values by using the “average weighted energy consumption per customer” and divide by the “average weighted coincident demand per customer”. The Company’s preferred methodology typically is used in the preparation of data to be included into a cost-of-service study. Since I was not incorporating this data into a cost-of-service study, there was no basis to provide the data in the manner that the Company describes.

Q. IS THERE A MATERIAL DIFFERENCE IN THE COINCIDENT LOAD FACTOR DATA BY SIZE OF CUSTOMER THAT YOU PRESENTED AND THAT PRESENTED BY MR. TAYLOR AND MR. ANDERSON?

A. No. Relatively speaking, the Company’s values are smaller than mine, but they show the very same trend. The values in Mr. Taylor’s Rebuttal Testimony on line 33 for May 2004 show the following pattern:

¹ See Mr. Taylor’s Rebuttal testimony beginning on line 14 and Mr. Anderson’s beginning on line 29.

² Yankel Direct lines 76-78.

	<u>kWh Range</u>	<u>Coincident L.F.</u>
67		
68	0-400	85%
69	401-600	83%
70	601-1000	73%
71	> 1000	69%
72		

73 This is essentially the same correlation that I addressed in my Direct
74 Testimony—the greater a customer’s monthly usage, the more “on-peak” a
75 customer’s usage became. Given the fact that Utah’s growth in summer
76 peak load has been significantly outpacing the growth in both winter peak
77 load and annual energy consumption, this relationship is very important.
78 The relationship exists regardless if you calculate average coincident load
79 factors as I did or as the Company proposes.

80 The important questions to keep in mind are: what can be done
81 about this rapid growth in summer peak demand; what future costs will it
82 place upon Utah customers; and which customers are going to incur those
83 costs?

84 **Q. COMPANY WITNESS TAYLOR STATES THAT HE DEVELOPED AN**
85 **EMBEDDED UNIT COST OF SERVICE RESULTS FOR BOTH SUMMER**
86 **AND WINTER PERIODS. DO YOU HAVE ANY OBSERVATIONS**
87 **REGARDING HIS RESULTS OR METHODS?**

88 A. Mr. Taylor included³ his “embedded unit cost of service results” in his
89 Exhibit DLT-1R. I do not know what an embedded unit cost of service
90 results may be, but it appears to be quite different than an embedded cost
91 of service study. Mr. Taylor’s embedded unit cost of service results is only

³ Starting on line 77 of Mr. Taylor’s Rebuttal testimony.

92 11 pages long. By contrast, Mr. Anderberg, in his Direct Testimony,
93 provided⁴ the Company's "functionalized Class Cost of Service Study",
94 which consisted of three exhibits and approximately 225 pages. Given the
95 fact that even a casual review of Mr. Taylor's embedded unit cost of service
96 results indicates the format used is completely different than the format
97 used in a traditional cost of service study provided by the Company, and
98 given the one-week time frame between Mr. Taylor's supplying his Rebuttal
99 Testimony and the need to file Surrebuttal Testimony, any thorough
100 review/critique of what Mr. Taylor has provided is impossible.

101 **Q. ARE THERE ANY INITIAL OBSERVATIONS REGARDING MR.**
102 **TAYLOR'S EXHIBIT DLT-1R THAT YOU WISH TO OFFER?**

103 A. Yes, there are a few observations worth noting. First, Tab 1.1 of Mr.
104 Taylor's Exhibit DLT-1R seems to be more of a breakdown of
105 winter/summer rates rather than a detailed description of how the individual
106 rates in each usage block are related to cost causation. For example, line
107 26 of Tab 1.1 indicates that when using a \$3.40 customer charge, the
108 average cost per kWh in the summer is calculated by the Company to be
109 8.91 cents, while the winter cost is 6.75 cents per kWh. If the Company
110 fully agrees with this calculation, and if it believes that rates must follow cost
111 causation (calculations), then why is it proposing winter rates that are 7.387
112 cents per kWh (10% above the calculated costs for 7 months of the year) so
113 that it could charge, on average, less than the cost that it calculated for the
114 summer months? If the summer costs are 1.3 times that of winter costs

⁴ Starting on line 22 of Mr. Anderberg's Direct Testimony.

115 (\$0.0891 / \$0.0675 = 1.32), then the Commission should consider making
116 even greater differentials in the summer/winter rates than what has been
117 proposed by any of the witnesses in this case.

118 A second observation is that this study seemed to allocate
119 distribution costs such as "Line Transformers" simply on the basis of the
120 non-coincident load factors of each of these groups. In the Company's cost
121 of service study, these calculations are modified by the number of
122 customers that take service from each transformer. Because of the
123 increase in use of air-conditioning, the size (demand) of many residential
124 customers has been increasing and the number of customers served per
125 transformer has been going down. In this case, the Company estimated⁵
126 that the average number of Residential customers per line transformer was
127 six. Less than 10 years ago in Docket 97-035-01, the Company estimated⁶
128 that the average number of Residential customers per line transformer was
129 eight. When the Company was making its calculations, it should have taken
130 into account that there are fewer customers per line transformer when large
131 customers are being served.

132 **Q. IS THE AVOIDED COST OF 9.12 CENTS PER KWH FOR USAGE OVER**
133 **1000 KWH THAT MR. TAYLOR CALCULATED ON PAGE 7 LINE 121 OF**
134 **HIS REBUTTAL TESTIMONY APPROPRIATE?**

135 A. No, for two reasons. First, Mr. Taylor footnotes his calculation by indicating
136 that the non-generation cost of 3.63 cents per kWh does not include

⁵ Exhibit UPL (KDA-3) Tab 5 page 8 line 21

⁶ Docket 97-035-01 Exhibit UP&L 8.8 (DLT-8) page 25 line 21.

137 customer-related costs. According to Tab 1.1 line 11 of his Exhibit DLT-1R,
138 customer-related costs amount to \$7.78 per customer per month. This
139 translates into \$59.6 million per year⁷ or 1.009 cents per kWh⁸ more than
140 what is shown on Mr. Taylor's Table 4 values. Including customer-related
141 costs with his other costs results in a "price signal" to monthly usage greater
142 than 1000 kWh of 10.124 cents per kWh—well above the 9.723 cents per
143 kWh rate that the Company proposes for summer usage over 1000 kWh.
144 Admittedly, the Company is proposing to recover some of these customer-
145 related costs in a customer charge, but even at the Company's proposed
146 \$3.40 customer charge over half of the customer-related costs will still need
147 to be collected in the energy rate.

148 . Second, in order to calculate the generation component of this rate,
149 Mr. Taylor used a "Summer Avoided Cost" rate of 5.48 cents per kWh.
150 Although the Company's Avoided Cost rate may be appropriate for
151 purposes of purchasing power from a qualifying facility (QF), this does not
152 necessarily represent the marginal prices that the Company encounters in
153 the market. The Company's net power costs in this rate case include
154 purchases listed under the headings of APS IF, Constellation, Morgan
155 Stanley Call, Pinnacle West, PSC New Mexico, and Sempra Call. Prices for
156 these marginal purchases vary from 6 cents per kWh up to 13 cents per
157 kWh at the generation level. Likewise, the Company's projected test year

⁷ \$7.78 times (7,659,292 + 210,992 + 4,591 bills) [Exhibit UP&L__(WRG-1R) page 1] or \$61,266,527 per year.

⁸ \$61,266,527 divided by (5,937,341,758 + 132,697,889 + 3,065,510 kWh per year) [Exhibit UP&L__(WRG-1R) page 1] equals 1.009 cents per kWh.

158 marginal purchase power costs included APS, Morgan Stanley, and UBS
159 ranging from 6 cents per kWh to 9.1 cents per kWh. In order to represent
160 these values at the residential pricing level, an additional 10% would need
161 to be added for losses. Thus, the 5.48 cents per kWh Mr. Taylor used in his
162 “price signal” for usage over 1000 kWh falls well short of the costs attendant
163 to many of the purchase power contracts that the Company included for
164 recovery in this rate case.

165

RESPONSE TO TESTIMONY OF MR. GRIFFITH

Q. ON PAGE 8 OF HIS REBUTTAL TESTIMONY, MR. GRIFFITH PRESENTS A GRAPH THAT HE CLAIMS DEMONSTRATES THAT ALL USAGE GROUPS ARE RESPONSIBLE FOR THE INCREASE IN SUMMER KWH GROWTH. DO YOU AGREE WITH THIS INTERPRETATION?

A. No. This graph is a collection of inappropriate and misleading information that I would strongly urge the Commission to disregard. For example, the graph suggests that residential customers across all sectors increase usage by the same approximate 500 kWh in the Summer compared to the Spring. Anyone that has central air-conditioning would tell you that a 500 kWh increase in usage due to air-conditioning is a small amount, and those that do not have central air-conditioning would tell you that a 500 kWh increase in usage is a very large change. Basically, this is a simple case of “averages” lying.

Another questionable result can be found in the lowest usage block (55-200 kWh) that is reported to have increased from an average of 151 kWh in the Spring to 392 kWh in the Summer ($151 + 241 = 392$). This suggests that there would be virtually no one with bills less than 400 kWh during the Summer. In fact, the Company’s bill frequency data⁹ from this same year shows there were 160,908 bills or 25% of the Residential bills in

⁹ Attachment CCS 2.5-1 Tab Sch 1,2,&3 lists 160,908 bills at or below 400 kWh out of 649,888 bills

187 July 2004 that were at or below 400 kWh. The graph is simply a
188 mathematical result that produces deceptive and misleading information.

189 **Q. WHAT IS CAUSING THE DATA IN THIS GRAPH TO BE SO**
190 **UNREPRESENTATIVE OF REALITY?**

191 A. The underlying support data used to establish Mr. Griffith's graph on page 8
192 of his Rebuttal Testimony was never provided. Only minimal summary data
193 was provided—additional backup data was not retained by the Company¹⁰.
194 Although not provided in discovery, Mr. Griffith stated in testimony¹¹ that the
195 “non-summer usage is the average of April and May usage” and that the
196 “summer usage is the average of July and August”. Because I did not have
197 any underlying data to review, I turned to the Company's load research data
198 for this same timeframe. Relying on the load research data, I was able to
199 separate out the following data for those customers whose usage was in the
200 301-400 kWh range during April/May 2004:

¹⁰ See response to CCS Data Request 24.1

¹¹ See Griffith's rebuttal testimony page 8 lines 169 through 173

		Apr/May	July/Aug
	<u>I.D.</u>	<u>Ave.</u>	<u>Ave.</u>
	<u>Number</u>	<u>kWh</u>	<u>kWh</u>
201			
202	1 22003	315	78
203	2 22030	303	160
	3 22027	308	205
204	4 26019	341	304
	5 22026	337	321
	6 22057	340	322
205	7 32015	360	364
	8 22019	348	413
206	9 22013	341	416
	10 26013	329	436
207			
	11 26025	317	445
208	12 22015	337	487
	13 42008	378	560
209	14 26027	383	621
	15 22035	366	697
	16 32005	379	725
210	17 22111	321	886
	18 22072	395	990
211	19 35437	362	1160
	20 22064	316	1401
212			
	Average	344	550
213			

214 Despite getting different averages from the load research data compared to
 215 the Company's figures I believe the results are close enough to determine
 216 what is occurring in the Company's graph. The average Spring usage from
 217 the load research data was 344 kWh, which is close to the 352 kWh found
 218 in the Company's graph for the non-summer usage. The average for the
 219 load research data for these same customers only increased 206 kWh
 220 compared to 326 kWh in the Company's graph, but it is a large enough
 221 increase to at least analyze what is occurring.

222 The above table was arranged in order of increasing usage during
 223 the summer months. Remember, that each of these customers have an

224 average Spring usage of 301-400 kWh. The actual Summer usage lists the
225 first customer as using 237 kWh less than his Spring usage. In fact, out of
226 this sample of 20, four customers used less in the Summer than in the
227 Spring. This random variation in usage (both positive and negative) is
228 expected. What is driving the increase in Summer usage portrayed in Mr.
229 Griffith's graph are the largest four customers in this grouping, rather than
230 the group as a whole. The 20th customer increased from 316 kWh to 1,401
231 kWh—I assume this was central air-conditioning. The 10th customer
232 increased from 329 kWh to 436 kWh—I find it very hard to believe that an
233 increase of 107 kWh is associated with central air-conditioning use.

234 The implications of Mr. Griffith's graph and the testimony that I
235 believe to be most misleading is:

236 As the figure clearly shows, all usage categories experience
237 increases in summer usage, and for many of these
238 categories, none of their additional usage falls in the
239 residential tailblock (over 1000 kWh).
240

241 The above statement is only accurate if averages are being used to
242 mask what is happening on an individual basis. On an individual basis,
243 many customers actually decrease usage and many stay relatively the
244 same. The dramatic increase in usage associated with certain customers
245 stems from the use of central air-conditioning, and those customers are
246 responsible for the apparent shift of the average usage for each group.
247 Contrary to Mr. Griffith's statement, customers that use central air-
248 conditioning, in fact, tend to get into the tailblock rate (over 1000 kWh). If

249 they did not, how does the Company explain the fact that 13% of their
250 residential customers used¹² over 1000 kWh in April 2004, while 29% of
251 their residential customers used¹³ over 1000 kWh in July 2004?

252 The important thing to keep in mind is not how much an individual
253 customer may, or may not, have increased their usage between Spring and
254 Summer, and certainly not how much a group of customers increased on
255 average, but what the loads are during the Summer and most importantly at
256 the time of the Summer peak. The Committee does not believe that air-
257 conditioning load is prevalent in the under 600 kWh block and certainly not
258 in the under 400 kWh block. The Committee's rate design proposal
259 specifically targets larger, air-conditioning usage during the summer
260 months. The Committee is asking the Commission to send a stronger price
261 signal where it will do the most good—to those residential customers
262 contributing most to the increase in Summer usage and to the rapid
263 increase in Summer peak loads.

264

¹² According to Attachment CCS 2.5-1 Tab Sch 1,2,&3 560,559 out of 645,643 (87%) used less than 1000 kWh in April 2004.

¹³ According to Attachment CCS 2.5-1 Tab Sch 1,2,&3 459,397 out of 649,888 (71%) used less than 1000 kWh in July 2004.

RESPONSE TO TESTIMONY OF DR. ABDULLE

Q. PLEASE PROVIDE YOUR OVERVIEW OF DR. ABDULLE'S REBUTTAL TESTIMONY.

A. Dr. Abdulle's testimony is primarily a summation of rate design criteria that suggests other rate designs that the Commission can adopt and implement if it places greater weight on certain policy considerations. Given the circumstances in this case, I believe that a "properly derived" customer charge is far less important than placing additional costs upon energy usage (the commodity over which customers have control) and in particular, the Summer tailblock energy charges in order to send a stronger price signal that increasing usage at this time is expensive to serve. I see no reason that a rate case that is mainly driven by increased Summer usage should result in half of that increase being applied as a fixed charge that will have its largest impact upon the smallest customers.

Q. DO YOU HAVE ANY SPECIFIC CONCERNS REGARDING DR. ABDULLE'S TESTIMONY?

A. Although there are many policy areas where we differ, I would like to address one technical misinterpretation of the proposal I put forth in my Direct Testimony. Specifically, I would like to address his claim¹⁴ that there would be a "revenue loss" of \$1.94 per customer bill because of my proposal to expand the size of the first block from 0-400 kWh to 0-600 kWh

¹⁴ See Dr. Abdulle's Rebuttal Testimony page 16 lines 7 through 18.

286 per month. Aside from several minor numerical errors¹⁵ in Dr. Abdulle's
287 testimony, I would like to discuss a more appropriate way to analyze this
288 proposal to increase the first block from 0-400 kWh to 0-600 kWh.

289 Dr. Abdulle calculates "lost revenue" as the difference between what
290 would be collected under the present 1st block rate of 6.936 cents and what
291 would be collected for the next 200 kWh of usage under the present 2nd
292 block rate of 7.872 cents. He then claims that this amounts to an added
293 burden to customers in the new 2nd and 3rd rate blocks. There are a number
294 of areas where this argument misses the mark.

295 First, assuming everything about his numerical analysis is correct, it
296 must be recognized that those incurring this increased "burden" are also the
297 very customers that benefit by it. A customer whose usage is in the 0-400
298 kWh block does not benefit if the block is increased to 0-600 kWh because
299 their usage is confined to the 1st block. A customer that uses more than 600
300 kWh will (under my proposal) be required to pick up additional costs
301 because of this change in the rate blocking, but he is also the very customer
302 that benefits from that change. Assuming that the \$1.94 figure is correct,
303 the customers that will be asked to make up this shortfall (usage over 600
304 kWh) are the customers that received the decrease of \$1.94 as part of their
305 bill because of this rate change, i.e., the customers would experience both a
306 decrease in the costs in the 401-600 kWh portion of his bill as well as an
307 increase in the portion of his bill over 600 kWh to balance this reduction.

¹⁵ The proposal is not to shift 299 kWh, but 200 kWh. The figure of \$13.8 should be \$13.87. The difference in revenue calculated on the basis of the same rates used in Dr. Abdulle's testimony is \$1.87 and not \$1.94.

308 The net effect is to place more emphasis on the price of usage over 600
309 kWh for those customers using more than 400 kWh per month during the
310 Summer.

311 Second, this proposal is being made as a part of an overall increase
312 in this case and not as an isolated proposal that will reduce the bill of one
313 theoretical customer that just happens to use exactly 600 kWh during one of
314 the five summer months. As I demonstrated in my Direct Testimony, this
315 proposal does not impact anyone during the seven winter months. During
316 the five summer months, my proposal results in less than the average
317 increase for customers in the 401-600 kWh range, but they get at least a
318 5.4% increase. Thus, no customer sees a decrease as may be suggested
319 by the concept of “lost revenue”.

320

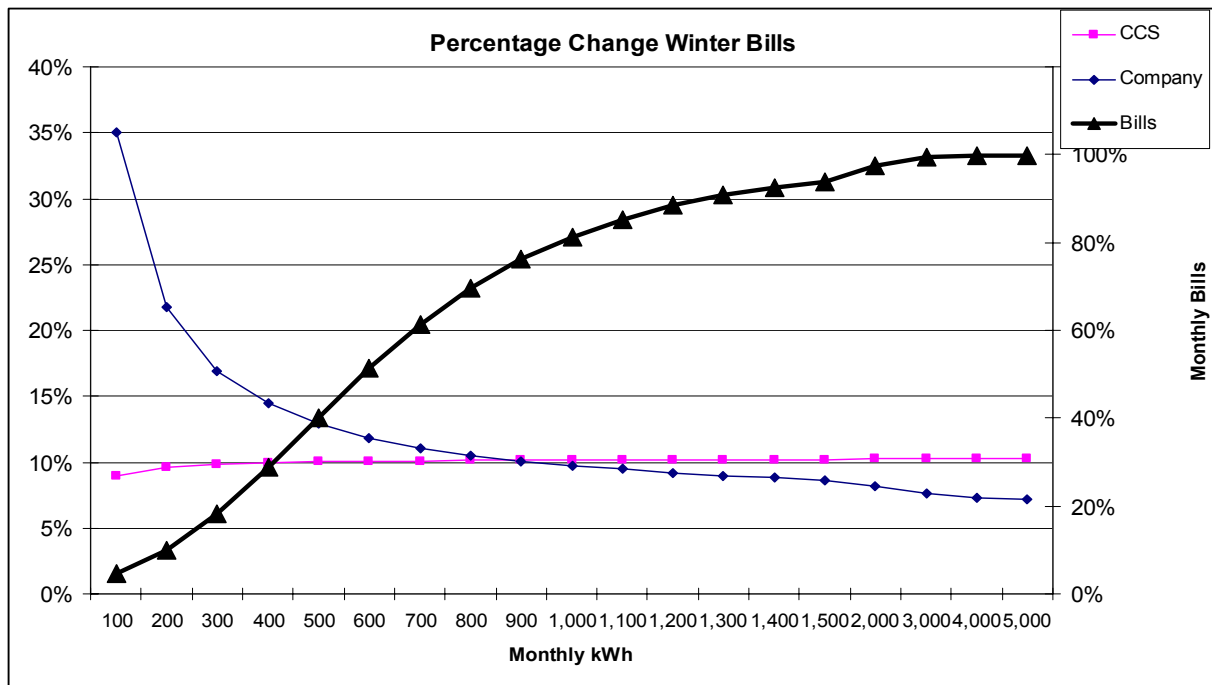
SUMMARY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The Commission is being asked to make important policy decisions in this case regarding Residential rate design. The Committee, charged with representing the interests of the majority of Residential customers, is recommending that the Commission not deviate substantially from the policies that it has practiced for the last 20 years. Although a Customer Charge can be calculated to be in excess of \$0.98 per month, the Committee recommends that it not be increased beyond this level in order to place more emphasis upon the only component upon which a customer has control—their energy usage. A primary driving force behind this rate case is the rapid increase in air-conditioning load (Residential and Non-Residential). At the margin this load is causing significant cost increases. Those marginal cost increases are not fully addressed in an average-embedded cost-of-service study. While the Committee does not believe that marginal cost studies should be used for revenue requirement and cost allocation purposes, it believes the Commission should give consideration to marginal costs when developing rate design at the class level. The Committee's rate design proposal appropriately places greater emphasis on the costs to serve higher use residential customers during the summer peak without being punitive.

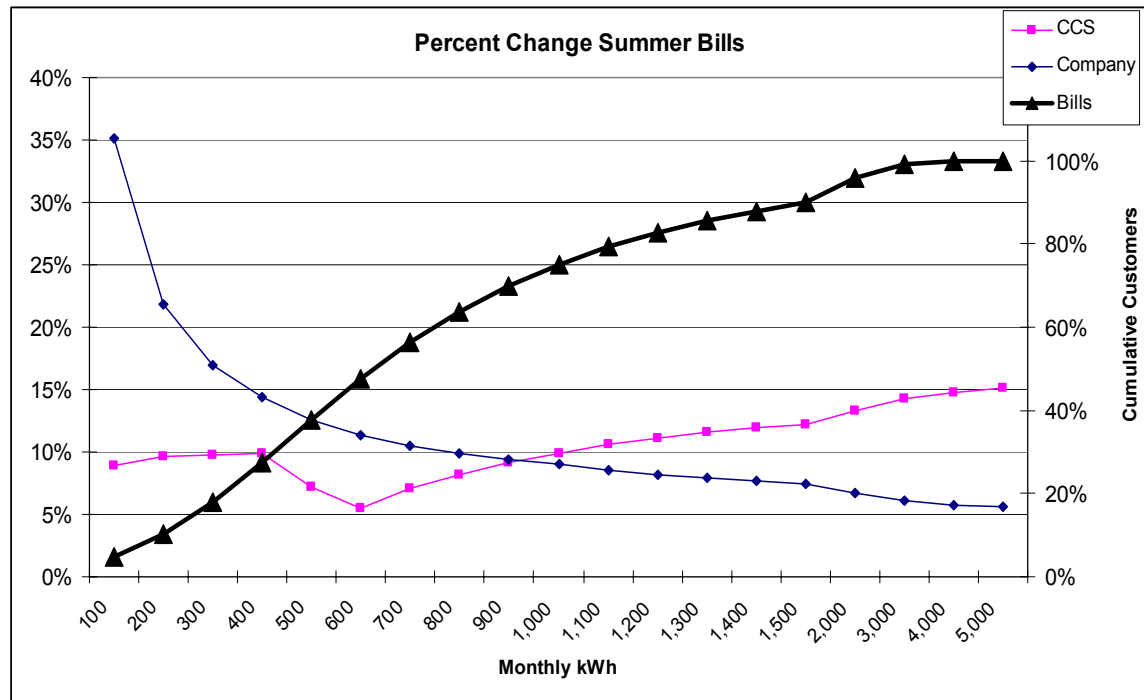
The rate design I proposed in my Direct Testimony provides a slightly lower percentage increase for small residential customers and a slightly higher percentage increase for large residential customers. Under my proposal, the majority of residential customers would see slightly less than the average increase. Under the Company's proposal, the majority of the customers would see an above average increase and the higher use customers (representing a minority of customers) would receive less than an average increase.

The following graph demonstrates the difference between the Company's and the Committee's Winter rate design proposals with the corresponding average percentage of bills involved.



The above graph demonstrates that the Company's rate design is more expensive during the Winter for all monthly usage below approximately 900 kWh. This represents approximately 76% of the winter bills.

358 A comparison of the Company's and the Committee's Summer rate
 359 design proposals is shown in the following graph:



360

361 The above graph demonstrates that the Company's rate design is more
 362 expensive during the summer for all monthly usage below approximately
 363 900 kWh. This represents just over 70% of the Summer bills. The data
 364 upon which these two graphs are based is attached as Exhibit CCS-3SR.1

365 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

366 **A.** Yes it does.